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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/667,300 | 09/25/2000 | Hitoshi Igarashi | Q60641 | 1596 |

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| EXAMINER |
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MOUTTET, BLAISE L

| ART UNIT | PAPER NUMBER |
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2853

DATE MAILED: 08/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------------------|---------------------------------|--|
| Office Action Summary | Application No. 09/667,300 | Applicant(s) IGARASHI ET AL. | |
| | Examiner Blaise L Mouttet | Art Unit 2853 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3 and 12-30 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12 and 19-30 is/are allowed.
- 6) ☒ Claim(s) 13, 16 and 18 is/are rejected.
- 7) ☒ Claim(s) 3, 14, 15 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The amendments to the specification filed July 9, 2004 have overcome the prior objections.

Claim Objections

2. Claim 3, as amended July 9, 2004, includes a typographical error in line 14 ("objectm abd" should read --object and--).

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 13, 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teshima US 5,159,254 in view of Hayashida et al 4,558,265.

(It is noted that while applicant has recited the control unit and method for controlling a motor "for use in a printer" in the preamble of the claims this is not seen to limit the claim since it does not add any structural or process limitations to the claims. See MPEP 2111.02 regarding statements of intended use in claim preambles)

Teshima discloses, regarding claims 13 and 16, a control unit and method for controlling a motor comprising:

a speed control part (102) to control a carriage (equivalent to the table of column 1, lines 7-12, carriage definition: a movable part of a machine for supporting another movable part) that is driven by the motor by acceleration and velocity control by controlling a current applied to the motor as shown and described in relation to figure 1;

an inertia calculating part (6) to perform a calculating step to calculate inertia of the object based on angular acceleration of the motor that accelerates the object (acceleration time = $1/T_p$), and current values to be applied to the motor (I_{max}) under the acceleration control of the object (column 6, lines 52-54), the calculated inertia being used by the speed control part to perform a controlling step to control the current to be applied to the motor (column 2, lines 29-38).

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Regarding claim 18, the method of controlling the carriage (table) of Teshima is capable of being used in a serial printer (for example the carriage table of Teshima may carry the print medium on which the printing portion of the serial printer prints or may be used as a support for the printer itself, it is noted that while claim 18 limits the type of printer used **in the intended use** of the method of claim 16 it is not seen to limit the recited method itself, the examiner again refers applicant to MPEP 2111.02 regarding statements of intended use in claim preambles and their effects on the scope of claims).

Teshima fails to disclose, regarding claim 13, that the speed control part controls the motor under constant speed control, deceleration control and stoppage control.

Teshima fails to disclose, regarding claim 16, a constant speed control of the object.

Hayashida et al. discloses, regarding claims 13 and 16, that ideal speed control of a motor typically includes acceleration control, constant speed control, deceleration control and stoppage control (column 6, line 52 – column 7, line 17).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include constant speed control, deceleration control and stoppage control as taught by Hayashida et al. in the motor control of Teshima.

The motivation for doing so would have been to achieve ideal speed control under various control conditions of the motor.

Allowable Subject Matter

4. Claim 3 is allowable (as indicated in the prior office action of February 9, 2004) provided the error in syntax is corrected.

Claim 12 is allowable (as indicated in the prior office action of February 9, 2004).

Claims 14, 15 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. These claims are allowable for reasons similar to that given in the prior office action for the limitations drawn to the stoppage current calculating part or calculating step in combination as claimed.

Claims 19-30 are allowable based on the further limitation that the deceleration control, of the inertia calculating part, inertia calculating step or program code for calculating inertia as claimed, is after a printing processing is completed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

5. Applicant's arguments filed July 9, 2004 have been fully considered but they are not persuasive as to the allowability of claims 13 and 16.

The applicant has misrepresented the examiners statement of allowable subject matter to extend to the object of original claims 1 and 9 being a carriage. This was not in

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fact what was indicated as allowable. It was the **positive recitation** (as opposed to an intended use recitation) that the control method as claimed was applied to a carriage **of a serial printer** that was indicated as allowable. In the prior office action claim 8 (currently cancelled), which included the specification of a carriage being controlled by the motor, was rejected since the plain meaning of a carriage is a movable part of a machine for supporting some other part. The movable table of Teshima clearly falls within this definition. See MPEP 2111.01 regarding reading claim limitations with their plain meaning unless more specifically defined in the specification.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Contact Information


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Blaise Mouttet who may be reached at telephone number (571) 272-2150. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier, Art Unit 2853, can be reached at (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Blaise Mouttet August 12, 2004

BM 8/12/2004


LAMSON NGUYEN
PRIMARY EXAMINER
08/16/04